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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,475	02/12/2001	Olivier Anthony	R 01013	9490
7590 06/17/2004			EXAMINER	
JEAN-LOUIS SEUGNET RHODIA INC. 259 Prospect Plains Road, Bldg. N-2 Cranbury, NJ 08512-7500			TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

<b>Office Action Summary</b>	<b>Application No.</b> 09/781,475	<b>Applicant(s)</b> ANTHONY ET AL.	
	<b>Examiner</b> Elena Tsoy	<b>Art Unit</b> 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-42, 45-55, 57 and 58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-42, 45-55, 57 and 58 is/are rejected.
- 7) ☒ Claim(s) 43, 44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Amendment***

1. Amendment filed on May 10, 2004 has been entered. New claims 57, 58 have been added. Claims 29-42, 45-55, 57, 58 are pending in the application.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Rejection of claim 47 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to amendment.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 29-42, 47, 50-55 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Dransfield et al (US 5,336,521) in view of December (US 6,376,616) for the reasons of record as set forth in Paragraph No. 4 of the Office Action mailed on January 21, 2004 because newly added steps e) and f) are optional, and particle size of claims 34 and 35 are within claimed range of 2-500 nm.
6. Claims 45, 46, 48, 49 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Dransfield et al (US 5,336,521) in view of December (US 6,376,616), further in view of

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Anderson et al (US 6,413,590) for the reasons of record as set forth in Paragraph No. 5 of the Office Action mailed on January 21, 2004.

7. Claims 57, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dransfield et al (US 5,336,521) in view of December (US 6,376,616) for the reasons of record as set forth in Paragraph No. 4 of the Office Action mailed on January 21, 2004 since Dransfield et al teach that before coating, the particulate zirconia is of less than 0.2 microns (i.e. with no lower limit) (See column 1, line 48), so that one of ordinary skill in the art at understand that very small particles in nanometer range (including claimed range of 2-90 nm) can be recovered.

***Allowable Subject Matter***

8. Claims 43, 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on January 21, 2004.

***Response to Arguments***

9. Applicants' arguments filed May 10, 2004 have been fully considered but they are not persuasive.

(A) Applicants argue that Dransfield et al teach away from recovering small particles because a milling step can be necessary (see column 5, lines 8-10), and the product obtained may present final particles with a size "no greater than 10 microns" (column 6, lines 4-5), which is considered in the art as big particles (far from less than 500 nm as claimed).

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The Examiner respectfully disagrees with this argument. First of all, in column 5, lines 8-10, Dransfield et al teach that, in contrast to prior art methods, milling of the coated product is **not** usually necessary. Secondly, “no greater than 10 microns” means only that there are no big particles. Thirdly, considering the fact, that, before coating, the particulate zirconia is of **less than 0.2 microns** (i.e. with no lower limit) (See column 1, line 48), one of ordinary skill in the art at understands that very small particles (including claimed range of 2-500 nm) can be recovered.

Therefore, Dransfield et al do not teach away from recovering small particles.

(B) Applicants argue that December teaches that it is necessary to add the dispersant to the pigment upon grinding the pigment (col. 8, lines 14-22) not when preparing pigments. Therefore, December teaches away from using a dispersant when preparing pigments.

The Examiner respectfully disagrees with this argument. December teaches that a compound having an acrylic backbone with a plurality of anionic groups such as a methacrylamide/methacrylate copolymer (See column 4, lines 46-49, 54-55; column 5, lines 5-17) and at least one polyalkylene oxide-based stabilizing (hydrophilic neutral) substituent (comb structure) such as an alkoxy-terminated polyalkylene oxide structure (See column 2, lines 56-66) is suitable for providing exceptionally stable dispersions of inorganic oxide pigments (See column 3, lines 22-27) such as titanium oxide (See column 7, lines 62-66) having preferably maximum particle size between 100 nm and less than 6000 nm (See column 8, lines 65-67). Therefore, pigment particles in nanometer range can be stabilized by the stabilizing effect of the dispersant, **not because of grinding** in the presence of dispersant. Grinding step is carried out only to obtain particle in a nanometer range. Clearly, one of ordinary skill in the art at would understand from the teaching of December that any small particles (no matter how they

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prepared) would be stabilized by the dispersant due to its structure not due to grinding in the presence of dispersant.

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'ETsoy', is positioned above the typed name.

Elena Tsoy  
Primary Examiner  
Art Unit 1762

June 16, 2004